

WHAT IS CLAIMED IS:

1 1. A method for loading data from a remote data source record by record, in a computer
2 system network connecting a source site and a target site via a database connection
3 communication line, the method comprising the following steps:

4 (a) coupling the source site to at least one data source and to a software server having
5 multi-database access to DBMSs;

6 (b) at the target site requesting data loading from the source site via a block of Structured
7 Query Language (SQL) statements or their equivalent; and

8 (c) transporting data record by record via the database connection communication line
9 according to a multi-database access communication protocol, wherein the target site loading
10 records concurrently with the unloading of records in the source site.

1 2. The method according to claim 1, wherein a data record being transported across the
2 database connection communication line as soon as one or more data records are unloaded from
3 the source site, and data loading at the target site beginning as soon as a record was transported
4 to the target site.

1 3. The method according to claim 1, wherein the data loading being performed in a pipeline
2 manner, loading data records in multiple partitions with a plurality of parallel streams, pointed to
3 by a plurality of data source partition cursors.

1 4. The method according to claim 1, wherein the block of SQL statements comprises
2 dynamic executable SQL statements performing in the EXECUTE IMMEDIATE mode.

1 5. The method according to claim 1, wherein the block of SQL statements comprises:
2 a SQL DECLARE CURSOR FOR SELECT statement, for defining a cursor referencing
3 separately each SELECT statement result record unloading from the server site, and
4 a LOAD command and an operator INCURSOR with the same cursor name for pointing
5 to the receiving record at the target site.

1 6. The method according to claim 1, wherein the server site having access to multiple data
2 sources, physically distributed and disparate DBMSs, residing on different hardware systems and
3 possibly storing data in a different format.

1 7. The method according to claim 6, wherein the server site loading data from multiple data
2 sources, further comprising a step for using a means for consolidating data from multiple data
3 sources.

1 8. The method according to claim 1, wherein the database connection communication line
2 utilizing the TCP/IP protocol, and the software server having multi-database access to DBMSs
3 including a Distributed Relational Database Architecture (DRDA).

1 9. A system for loading data from a remote data source record by record, comprising:
2 a source site coupled to at least one data source and having a software server with multi-
3 database access to DBMSs;
4 a target site requesting data loading from the source site via a block of Structured Query
5 Language (SQL) statements or their equivalent; and
6 a database connection communication line for transporting data record by record and
7 according to a multi-database access communication protocol, wherein the target site loading
8 records concurrently with the unloading of records in the source site.

1 10. The system according to claim 9, wherein a data record being transported across the
2 database connection communication line as soon as one or more data records are unloaded from
3 the source site, and data loading at the target site beginning as soon as a record was transported
4 to the target site.

1 11. The system according to claim 9, wherein the data loading being performed in a pipeline
2 manner, loading data records in multiple partitions with a plurality of parallel streams, pointed to
3 by a plurality of data source partition cursors.

1 12. The system according to claim 9, wherein the block of SQL statements comprises
2 dynamic executable SQL statements performing in the EXECUTE IMMEDIATE mode.

1 13. The system according to claim 9, wherein the block of SQL statements comprises:
2 a SQL DECLARE CURSOR FOR SELECT statement, for defining a cursor referencing
3 separately each SELECT statement result record unloading from the server site, and
4 a LOAD command and an operator INCURSOR with the same cursor name for pointing
5 to the receiving record at the target site.

1 14. The system according to claim 9, wherein the server site having access to multiple data
2 sources, physically distributed and disparate DBMSs, residing on different hardware systems and
3 possibly storing data in a different format.

1 15. The system according to claim 14, wherein the server site loading data from multiple data
2 sources, further comprising a means for consolidating data from multiple data sources.

1 16. The system according to claim 9, wherein the database connection communication line
2 utilizing the TCP/IP protocol, and the software server having multi-database access to DBMSs
3 including a Distributed Relational Database Architecture (DRDA).

1 17. A program storage device readable by a computer tangibly embodying a program of
2 instructions executable by the computer to perform method steps for loading data from a remote
3 data source record by record, in a computer system network connecting a source site and a target
4 site via a database connection communication line, the method comprising the following steps:

5 (a) coupling the source site to at least one data source and to a software server having
6 multi-database access to DBMSs;

7 (b) at the target site requesting data loading from the source site via a block of Structured
8 Query Language (SQL) statements or their equivalent; and

9 (c) transporting data record by record via the database connection communication line
10 according to a multi-database access communication protocol, wherein the target site loading
11 records concurrently with the unloading of records in the source site.

1 18. The method according to claim 17, wherein a data record being transported across the
2 database connection communication line as soon as one or more data records are unloaded from
3 the source site, and data loading at the target site beginning as soon as a record was transported
4 to the target site.

1 19. The method according to claim 17, wherein the data loading being performed in a
2 pipeline manner, loading data records in multiple partitions with a plurality of parallel streams,
3 pointed to by a plurality of data source partition cursors.

1 20. The method according to claim 17, wherein the block of SQL statements comprises
2 dynamic executable SQL statements performing in the EXECUTE IMMEDIATE mode.

1 21. The method according to claim 17, wherein the block of SQL statements comprises:
2 a SQL DECLARE CURSOR FOR SELECT statement, for defining a cursor referencing
3 separately each SELECT statement result record unloading from the server site, and
4 a LOAD command and an operator INCURSOR with the same cursor name for pointing
5 to the receiving record at the target site.

1 22. The method according to claim 17, wherein the server site having access to multiple data
2 sources, physically distributed and disparate DBMSs, residing on different hardware systems and
3 possibly storing data in a different format.

1 23. The method according to claim 22, wherein the server site loading data from multiple
2 data sources, further comprising a step for using a means for consolidating data from multiple
3 data sources.

1 24. The method according to claim 17, wherein the database connection communication line
2 utilizing the TCP/IP protocol, and the software server having multi-database access to DBMSs
3 including a Distributed Relational Database Architecture (DRDA).